

## SECTION 06 41 16

### PLASTIC-LAMINATE-CLAD ARCHITECTURAL CABINETS

(AAPG Commercial Casework — High-Pressure Laminate-Clad Casework)

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. Section Includes: Factory-fabricated plastic-laminate-clad architectural cabinets for commercial interiors, including base cabinets, wall cabinets, tall and full-height cabinets, plastic-laminate countertops where indicated, cabinet hardware, and related trim, fillers, scribes, closures, and accessories.
  - 1. [High-pressure-laminate-clad casework, exposed and semi-exposed surfaces.]
  - 2. [Plastic-laminate countertops and backsplashes as scheduled.]
  - 3. [Casework-mounted accessories, grommets, and wire management.]
- B. Products Not Furnished or Installed Under This Section:
  - 1. Wood blocking, backing, and in-wall reinforcement for casework attachment.
  - 2. Gypsum board substrates and finished wall surfaces.
  - 3. [Plumbing fixtures, fittings, and sinks set into casework, specified in Division 22.]
  - 4. [Electrical devices, data outlets, and under-cabinet lighting, specified in Divisions 26 and 27.]
  - 5. [Stone, quartz, and solid-surface countertops specified in Section 12 36 00.]
  - 6. Field finishing of adjacent construction.

##### 1.2 RELATED SECTIONS

- A. Section 06 10 00 - Rough Carpentry: Blocking and backing for casework support.
- B. Section 06 41 00 - Architectural Wood Casework.
- C. Section 12 32 00 - Manufactured Wood Casework.
- D. Section 09 21 16 - Gypsum Board Assemblies: Wall substrates receiving casework.
- E. Section 12 36 00 - Countertops: [Stone] [Quartz] [Solid-surface] countertops.
- F. Division 22 - Plumbing: Sinks, fittings, and rough-in at casework.
- G. Divisions 26 and 27 - Electrical and Communications: Devices, power, and data at casework.

##### 1.3 REFERENCES

- A. National Electrical Manufacturers Association (NEMA):
  - 1. NEMA LD 3 - High-Pressure Decorative Laminates.
- B. Architectural Woodwork Institute (AWI):
  - 1. AWI Architectural Woodwork Standards (AWS), latest edition — laminate casework requirements.
  - 2. AWI Quality Certification Program (QCP), where required by the Project.
- C. ASTM International (ASTM):
  - 1. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- D. American National Standards Institute (ANSI):
  - 1. ANSI A208.1 - Particleboard.
  - 2. ANSI A208.2 - Medium Density Fiberboard (MDF) for Interior Applications.
  - 3. ANSI/KCMA A161.1 - Performance and Construction Standard for Kitchen and Vanity Cabinets.
- E. Builders Hardware Manufacturers Association (BHMA):
  - 1. ANSI/BHMA A156.9 - Cabinet Hardware.
- F. U.S. Environmental Protection Agency (EPA) and California Air Resources Board (CARB):
  - 1. 40 CFR Part 770 (TSCA Title VI) and CARB ATCM 93120 - Formaldehyde emissions from composite wood products.
- G. International Building Code (IBC), Chapter 8 - Interior Finishes.

## **1.4 ADMINISTRATIVE REQUIREMENTS**

- A. Preinstallation Conference: Conduct a conference at the Project site before installation. Review substrates, blocking and backing, environmental conditions, layout, installation sequence, utility rough-ins, countertop coordination, hardware, keying, and protection.
- B. Coordination: Coordinate casework dimensions, blocking, cutouts, and service locations with plumbing, electrical, communications, and countertop work before fabrication.

## **1.5 SUBMITTALS**

- A. Product Data: Submit manufacturer's literature for each casework type, describing construction, core materials, laminate grades, edge treatments, hardware, and accessories.
- B. Shop Drawings: Submit plans, elevations, and sections showing casework layout, dimensions, construction, cabinet types, laminate colors and grades, edge treatment, hardware, filler and scribe conditions, countertop interface, cutouts, blocking, anchorage, and accessible clearances.
- C. Samples:
  - 1. Laminate Samples: Minimum 8 inches by 10 inches (203 mm by 254 mm) for each color, pattern, and finish specified, showing the specified grade.
  - 2. Edge Samples: Showing the specified edgeband type and color.
  - 3. Hardware Samples: One of each hinge, pull, drawer slide, and lock specified.
  - 4. Corner Sample: Cabinet corner showing core, laminate face, backer, edge, and joinery.
- D. Certificates and Test Reports:
  - 1. AWI Quality Certification Program (QCP) certification, where required by the Project.
  - 2. Surface burning characteristics (ASTM E84) for the specified casework, where required.
  - 3. Composite-panel formaldehyde compliance documentation (TSCA Title VI / CARB).
- E. Closeout Submittals: Submit cleaning and maintenance instructions, warranty documentation, and a record of the approved laminate colors, grades, hardware, and product codes.

## **1.6 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Manufacturer regularly engaged in the production of plastic-laminate-clad casework of similar type, scope, and quality.
- B. Installer Qualifications: Installer experienced in casework of comparable scope and approved by the manufacturer.
- C. Grade: Provide casework complying with the AWI Architectural Woodwork Standards, [Premium] [Custom] [Economy] Grade, for the products indicated.
- D. Surface Burning Characteristics: Provide casework complying with the interior finish requirements of IBC Chapter 8 for the occupancy and location indicated, when tested in accordance with ASTM E84.
  - 1. Required Rating: [Class A.] [Class B.] [Class C.] [As required by the authority having jurisdiction.]
- E. Single-Source Responsibility: Provide casework, countertops where specified, hardware, and accessories under single-source responsibility.
- F. Mockup: [Provide one full-size base and wall cabinet assembly, including laminate faces, edges, hardware, and countertop interface, for review. The approved mockup establishes the minimum standard.]

## **1.7 DELIVERY, STORAGE, AND HANDLING**

- A. Deliver casework in protective packaging identified with product, finish, and Project information, and only after wet work is complete and dry.
- B. Store casework upright and supported in a dry, conditioned, ventilated space, protected from moisture, sunlight, soiling, and damage. Do not store directly on concrete.
- C. Handle casework to prevent chipping, scratching, racking, and damage to faces, edges, and hardware.
- D. Immediately report damaged or missing materials to the shipper and to AAPG. Do not install missing or damaged components.

## **1.8 PROJECT CONDITIONS**

- A. Environmental Conditions: Do not deliver or install until the building is enclosed, wet work is complete and dry, and permanent HVAC maintains service conditions.
- B. Acclimatization: Condition casework in the installation area for not less than 48 hours before installation, or longer if required by the manufacturer.
- C. Field Measurements: Verify dimensions at the Project site before fabrication where the Work depends on field conditions.

## **1.9 WARRANTY**

- A. Manufacturer's Warranty: Provide the manufacturer's standard written warranty covering defects in materials and manufacture for [one (1)] year from the date of Substantial Completion.

## **PART 2 - PRODUCTS**

### **2.1 MANUFACTURER**

- A. Basis-of-Design Manufacturer: American Architectural Products Group (AAPG), 248 James Street, Venice, FL 34285. Telephone: +1-844-307-9571. Email: info@aapgco.com. Website: www.aapgco.com.
- B. Specified Product: AAPG Plastic-Laminate-Clad Architectural Cabinets.

### **2.2 SUBSTITUTIONS**

- A. Substitutions: Not permitted. Requests for substitutions, comparable products, alternates, or proposed equals will not be considered.
- B. Division 01 substitution procedures do not apply to this Section. Product naming is proprietary and establishes the only acceptable manufacturer and product.

### **2.3 CASEWORK — COMMON REQUIREMENTS**

- A. Grade: AWI Architectural Woodwork Standards, [Premium] [Custom] Grade.
- B. Construction Type: [Flush overlay.] [Reveal overlay.] [Frameless (European).] [Face-frame.]
- C. Cabinet Bodies: [3/4-inch (19 mm)] industrial particleboard or MDF core, faced with high-pressure laminate and backer as specified.
- D. Exposed Surfaces: High-pressure decorative laminate, NEMA LD 3 [Grade HGS, 0.048 in. horizontal] [Grade VGS, 0.028 in. vertical] as appropriate to the surface. Semi-exposed surfaces: [cabinet-liner grade laminate] [thermally fused laminate].
- E. Balancing / Backer Sheet: Apply NEMA LD 3 backer (BKL) or laminate of equal thickness to the reverse of laminate-faced panels to balance the assembly and control warp.
- F. Edge Treatment: [PVC edgeband, 1 mm or 3 mm.] [ABS edgeband.] [Self-edge laminate.] [Wood edge.] Color: [matching] [contrasting].
- G. Backs: [1/2-inch (13 mm)] minimum; [full 3/4-inch (19 mm) at wall-hung units]. Provide continuous hanging rails for wall cabinets.
- H. Drawers: [Doweled multi-ply] [steel-sided] [dovetailed] boxes, with [full-extension] [soft-close] slides.
- I. Adjustable Shelves: Laminate-faced and balanced, edgebanded, adjustable on [5 mm pin] [twin] supports.
- J. Composite Panels: Comply with TSCA Title VI / CARB for formaldehyde. Particleboard: ANSI A208.1. MDF: ANSI A208.2.

### **2.4 HIGH-PRESSURE LAMINATE**

- A. Standard: NEMA LD 3.
- B. Horizontal Surfaces (Countertops): Grade HGS (0.048 in. / 1.2 mm) general-purpose, or HGP (postforming) where profiled.
- C. Vertical Surfaces (Doors, Fronts, Ends): Grade VGS (0.028 in. / 0.7 mm).
- D. Color, Pattern, and Finish: [Manufacturer's standard] [as scheduled], selected from the manufacturer's full range.

### **2.5 PLASTIC-LAMINATE COUNTERTOPS [WHERE SCHEDULED]**

- A. Core: [3/4-inch (19 mm)] moisture-resistant particleboard or MDF, [built up to 1-1/2 in. (38 mm) at edges].
- B. Surface: NEMA LD 3 Grade HGS laminate; [HGP postforming grade at profiled edges and integral coved backsplashes].
- C. Edge Profile: [Self-edge.] [Postformed.] [Applied wood.] [Beveled.]
- D. Backsplash: [Coved integral.] [Applied 4-inch (100 mm) splash.] [As scheduled.]

## 2.6 CASEWORK HARDWARE

- A. General: Comply with ANSI/BHMA A156.9; commercial grade for the frequency of use indicated.
- B. Hinges: [Concealed European-style, adjustable, soft-close, minimum 110-degree opening.] [Institutional five-knuckle.]
- C. Pulls: [Wire pulls] [bar pulls] [as scheduled]; finish [\_\_\_\_\_].
- D. Drawer Slides: [Full-extension, soft-close, minimum 100-lb (45 kg) class.] [Heavy-duty 150-lb (68 kg) class where indicated.]
- E. Locks: [Cam locks / keyed as scheduled], keyed [alike] [differently] [to Project keying].
- F. Shelf Supports, Levelers, and Grommets: Manufacturer's standard commercial-grade.

## 2.7 FABRICATION

- A. Fabricate casework to the AWS grade specified, square, true, and rigid, with flush, aligned faces and consistent reveals.
- B. Bond laminate to cores under heat and pressure with the manufacturer's standard adhesive. Balance every laminate-faced panel with a backer to control warp.
- C. Factory-assemble to the greatest extent practicable; provide field joints only where necessary for handling and access.
- D. Machine cutouts, radius internal corners of cutouts, ease exposed edges, and reinforce as required. Seal field-cut composite edges where exposed to moisture.
- E. Provide fillers, scribes, closures, and finished ends as required for a complete installation.

# PART 3 - EXECUTION

## 3.1 EXAMINATION

- A. Examine substrates, blocking, dimensions, tolerances, moisture conditions, utility rough-ins, and adjacent construction before installation.
- B. Verify that blocking and backing are present, correctly located, and capable of supporting the casework and imposed loads without deflection.
- C. Do not begin installation until unsatisfactory conditions have been corrected. Beginning installation constitutes acceptance of substrates.

## 3.2 PREPARATION

- A. Verify and establish layout, benchmarks, and control lines. Coordinate with adjacent finishes.
- B. Coordinate concealed services, cutouts, and blocking before setting casework.

## 3.3 INSTALLATION

- A. Install casework in accordance with the approved shop drawings and the manufacturer's written instructions, level, plumb, and true, and within the installation tolerances of the referenced standard.
- B. Anchor casework securely to blocking and structure with concealed fasteners. Do not rely on gypsum board alone for attachment.
- C. Set base cabinets on levelers or shims; align faces and tops; join adjacent units with concealed connectors for flush, tight joints.
- D. Hang wall and tall cabinets from continuous hanging rails and blocking. Support countertops on properly leveled cabinets.
- E. Scribe fillers, finished ends, and closures neatly to adjacent construction. Provide accessible knee and toe clearances complying with the accessibility standard where indicated.
- F. Install hardware, adjust for smooth operation, and provide the specified keying.

- G. Cut openings accurately for sinks, fittings, devices, grommets, and penetrations; seal cut laminate and composite edges as required.

### **3.4 ADJUSTING**

- A. Adjust doors, drawers, and hardware for smooth, quiet, aligned operation with consistent reveals and clearances.

### **3.5 FIELD QUALITY CONTROL**

- A. Inspect the completed installation for alignment, level, plumb, secure anchorage, surface damage, joint uniformity, hardware operation, and conformance with the approved shop drawings and mockup.
- B. Replace casework that is warped, delaminated, chipped, scratched, stained, misaligned, or otherwise unacceptable.

### **3.6 CLEANING**

- A. Clean exposed surfaces with manufacturer-approved nonabrasive products. Remove adhesive, markings, and construction residue without damaging finishes.
- B. Do not use abrasive pads, strong solvents, or cleaners not approved by the manufacturer.

### **3.7 PROTECTION**

- A. Protect completed casework from impact, moisture, dust, staining, and damage by subsequent construction activities.
- B. Repair or replace damaged work before Substantial Completion.

## **END OF SECTION 06 41 16**